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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,734	05/17/2007	Ulrich Lange	2133.131USU	5438

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EXAMINER

DEGHAN, QUEENIE S

ART UNIT	PAPER NUMBER
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1791

MAIL DATE	DELIVERY MODE
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06/08/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/574,734	Applicant(s) LANGE ET AL.	
	Examiner QUEENIE DEGHAN	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 44,46-55,61-63 and 80 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 44,46-55,61-63 and 80 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 March 2009 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings were received on March 20, 2009. These drawings are not acceptable. Item 13 has been added with no reference to it in the specification. Also, it appears item 13 is pointing to the same thing and item 40. Similarly, item 27 seem to be pointing to the same thing as item 42.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Several reference characters are not mentioned in the description including, **but are not limited to**, item 17. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in references in the drawings. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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3. The applicant is advised to thoroughly go through the specification and drawings to correct for inconsistencies.

Specification

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
7. Claims 44, 46-47, 49-55, 63 and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danner (2,462,805). Danner discloses an apparatus for producing

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hollow strands by drawing molten glass in a drawing direction comprising a nozzle having an outer shell (67) and a needle (11), the nozzle extending in the drawing direction (figure 6), and a displacement body (53) projecting out of the nozzle in the drawing direction, the displacement body comprising a hollow body that is open to the glass and arranged in the nozzle between the outer shell and the needle so that it is capable of allowing molten glass to penetrate the spaces between the outer shell, displacement body, and needle (figure 6, col. 7 lines 2-64).

8. Danner suggest in figure 6 a displacement body that has a cross sectional dimension and projects out of the nozzle by at least half the cross sectional dimension. Although dimensions are not specifically mentioned, from the drawings, the displacement body has an approximate internal diameter of 0.9mm and a projection portion out of the nozzle of 0.8mm, which is at least half the cross sectional dimension of the internal diameter of the displacement body. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to have obvious to one of ordinary skill in the art at the time of the invention to have employed a displacement body that has a length that protrudes beyond the nozzle by a significant length, such as longer than the radius of the opening of the displacement body in order to ensure the proper flow of molten glass out of the nozzle for producing the desired shaped and thickness of glass tubing.

9. Regarding claim 46, the displacement body (53) comprises a body boundary ending in a point that located outside the nozzle and in contact with the molten glass (figure 6).

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10. Regarding claim 47, the outer shell comprises a shell boundary in contact with the hollow strand, the shell boundary comprising a break off edge in the drawing direction, wherein detaching of the hollow strand from the nozzle takes place at the break off edge (fig 6).

11. Regarding claim 49, Danner discloses connecting elements (78) for connecting the displacement body to the nozzle (figure 6, col. 7 lines 14-33).

12. Regarding claim 50, the displacement body is supported by elements (78), appearing to allow for the displacement body to sit on the elements, which would evidently allow for the vertical movement of the displacement body with respect to the nozzle (figure 6).

13. Regarding claims 51-52, the outer shell and displacement body is cylindrical (items 67 and 53 respectively in figures 6&7).

14. Regarding claim 53, the displacement body is arranged coaxially with the nozzle (fig. 7).

15. Regarding claim 54, the displacement body and said nozzle define a gap there between (at vicinity of 77 in fig. 6), said gap capable of permitting a predeterminable throughput at a given viscosity of the at least one settable liquid (col. 7 lines 30-33).

16. Regarding claim 55, the displacement body comprises dimensions that are not constant in a plane that is perpendicular to a longitudinal axes of said at least one displacement body, as can be seen by the point profile of the displacement body in the drawing direction (fig. 6).

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17. Regarding claim 63, Danner discloses a device for generating a pressure difference between an interior and an exterior of the hollow strand (col. 16 lines 12-26).

18. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Danner (2,462,805) in view of Mueller et al. (2004/0065115). Danner fail to disclose a material for the shell boundary. Mueller teaches a shell boundary that is in contact with the molten glass at the break-off edge comprising a material (platinum alloy) that is poorly wetted by molten glass ([0087]). It would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the material of Mueller in the shell boundary of Danner because of its ability to resist corrosion.

19. Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over Danner (2,462,805) in view of Reese (4,141,709). Danner does not discuss applying liquid to the hollow strand (fig 3, col. 1 line 67 to col. 2 line7). Reese teaches a device for applying a liquid to drawn strands to cool the fibers. It would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized the device of Reese in the apparatus of Danner in order to cool the strands quickly for easier handling as taught by Reese.

20. Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over Danner (2,462,805) in view of Vatterodt (3,212,871). Danner fail to disclose the material for the displacement body. Vatterodt teaches an apparatus for drawing glass tubing, wherein several parts involved in contact with molten glass are made of a refractory metal such as molybdenum (col. 4 lines 49-50). It would have been obvious to one of ordinary skill in the art at the time of the invention to have similarly used such a material the

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displacement body of Danner since it is known that refractory metal such as molybdenum has a high melting point that can resist the high temperatures of molten glass.

Response to Arguments

1. The applicant has added items 27 and 13 to the figures. Item 13 is not present in the specification. Furthermore, the previous rejection pointed to a couple of mistakes found in the drawings, i.e. numeral 39. It was mentioned that the mistakes were limited by the two examples given. The applicant is advised to thoroughly go through the drawings and specifications and correct inconsistencies in term and labeling of the figures.
2. Applicant's arguments filed March 20, 2009 have been fully considered but they are not persuasive. The applicant argues the effective filing date of present application is October 11, 2003 due to a foreign priority claim in the original PCT. This is incorrect. The effective filing date for this application is the PCT date, October 1, 2004. Therefore the Mueller reference is a valid 102(e) reference.
3. The applicant further argues Danner does not suggest a displacement body with a length longer than the width of its radius. The Examiner disagrees. Danner does depict a displacement body whose length is significantly longer than its radius, by more than the radius, and therefore, one skilled in the art would have similarly designed a drawing apparatus to have a similar feature.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to QUEENIE DEGHAN whose telephone number is (571)272-8209. The examiner can normally be reached on Monday through Friday 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven P. Griffin/
Supervisory Patent Examiner, Art
Unit 1791

Q Dehghan